

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. 1. (Currently amended) A drop ejector, comprising:

a flow path in which fluid is pressurized to eject drops from a nozzle opening formed in a substantially planar substrate and lying in a plane defined by a surface of the substrate;

a radial channel formed in the substrate proximate the nozzle opening, the radial channel having dimensions configured to and being spaced from the nozzle opening a distance to draw for drawing fluid into the space defined by the radial channel, a portion of the radial channel being below the plane defined by the surface of the substrate; and

at least one connecting radial channel formed in the substrate and extending from the radial channel, the connecting channel being configured to move fluid away from the nozzle opening.

2. (Currently Amended) A drop ejector, comprising:

a first and second flow paths in which fluid is pressurized to eject drops from a first and second nozzle openings formed in a substantially planar substrate and lying in a plane defined by a surface of the substrate;

a first and second radial channels formed in the substrate proximate the respective first and second nozzle openings, the channels having dimensions and being spaced from the nozzle openings a distance configured to draw-for-drawing fluid by capillary forces into the space defined by the radial channels, a portion of the radial channels being below the plane defined by the surface of the substrate; and

first and second connecting at least one radial channels formed in the substrate and extending from the first and second radial channels, and a third connecting channel connecting

the first and second radial channels, the connecting channels being configured to move fluid away from the nozzle opening.

3. (Currently Amended) The drop ejector of claim 2 wherein the channel is first and the second channels are in the shape of a circle.

4. (Cancelled)

5. (Currently Amended) The drop ejector of claim 1 wherein the radial channel has a width that is about twice the nozzle opening width or less.

6. (Currently Amended) The drop ejector of claim 1 wherein the radial channel has a width of about 100 microns or less.

7. (Currently Amended) The drop ejector of claim 1 wherein a depth of the radial channel is from about 2 microns to about 50 microns.

8. (Original) The drop ejector of claim 1 wherein the substrate is a silicon material.

9. (Currently Amended) The drop ejector of claim 1 wherein the planar substrate includes a plurality of nozzle openings and radial channels proximate the nozzle openings.

10. (Previously Presented) The drop ejector of claim 1 wherein the nozzle opening width is about 200 microns or less.

11. (Original) The drop ejector of claim 1 including a piezoelectric actuator.

12. (Currently amended. A method of fluid ejection, comprising:
ejecting a drop through a nozzle opening formed in a substrate and lying in a plane defined by a surface of the substrate;

- positioning a radial channel in the substrate proximate the nozzle opening;
providing at least one connecting channel in the substrate, the connecting channel
extending from the radial channel;
drawing fluid into the space defined by the radial channel during fluid ejection, the fluid
moving from the radial channel into the connecting channel, a portion of the radial channel being
below the plane defined by the surface of the substrate,
positioning at least one radial channel in the substrate; and
providing a fluid that is drawn into the space defined by said channel.
13. (Original) The method of claim 12 wherein the fluid has a surface tension of about 20-50 dynes/cm.
14. (Original) The method of claim 12 wherein the fluid has a viscosity of about 1 to 40 centipoise.
15. (Currently Amended) The drop ejector of claim 1 wherein the radial channel is spaced from the nozzle opening by a distance of about 20% of a nozzle width or more.
16. (Cancelled)
17. (Currently Amended) The drop ejector of claim 1 further comprising a vacuum source in communication with the radial connecting channel.
18. (Currently Amended) The drop ejector of claim 1 further comprising a wicking material in communication with the radial connecting channel.
19. (Currently Amended) The drop ejector of claim 1 wherein fluid is drawn into the space defined by the radial channel during jetting.

20 (Currently Amended) The method of claim 12 wherein the radial channel is spaced from the nozzle opening by a distance of about 20% of a nozzle width or more.

21. (Cancelled)

22. (Currently Amended) The method of claim 12 further comprising providing a vacuum source in communication the radial connecting channel.

23. (Currently Amended) The method of claim 12 further comprising providing a wicking material in communication with the radial connecting channel.

24. (Currently Amended) The method of claim 12 wherein the fluid is drawn into the radial channel by capillary forces.

25. (Currently Amended) The method of claim 12 wherein the fluid is drawn into the radial channel by gravity.

26. (Currently Amended) The method of claim 12 wherein fluid is drawn into the space defined by the radial channel during jetting.